REMARKS

Claims 1-33 are pending.

Claims 1-33 stand rejected.

Claims 1, 7-9, 15, 21, 27, and 33 have been amended.

Claim Rejections - 35 U.S.C. § 112

Claims 1, 21, 27, and 33 stand rejected under 35 U.S.C. § 112.

Claim 1 has been amended to replace "common node" with --focus node – to correct the antecedent basis issue.

Line 3 of each of claims 21, 27, and 33 has been amended to replace "the plurality of nodes" with – a plurality of nodes – to correct the antecedent basis issue.

Applicants respectfully request withdrawal of the rejection.

Claim Rejections - 35 U.S.C. § 101

Claims 9-14, 21-26, and 33 stand rejected under 35 U.S.C. § 101 because none of the claims are directed to statutory subject matter. Applicants respectfully traverse the rejection.

Applicants respectfully submit that claim 9 is statutory subject matter because, for example, the data provided "to allow a display medium to display the focus node and the one or more nodes of the child sub-tree … without displaying the child sub-tree of the hierarchy of nodes that are not determined to be associated with the context of the focus node" is a ""a useful, concrete and tangible result."

The Supreme Court "has held that mathematical algorithms are not patentable subject matter to the extent that they are merely abstract ideas. See *Diamond v. Diehr*, 450 U.S. 175 (1981), *passim*; *Parker v. Flook*, 437 U.S. 584 (1978); *Gottschalk v. Benson*, 409 U.S. 63 (1972). In *Diehr*, the Court explained that certain types of mathematical subject matter, standing alone, represent nothing more than abstract ideas until reduced to some type of practical application, i.e., "a useful, concrete and tangible result." *In re Alappat*, 33 F.3d at 1544, 31 USPQ2d at

1557." *State Street Bank v. Signature Financial Group, Inc.*, 149 F.3d 1368, 47 U.S.P.Q.2d 1596 (Fed. Cir. 1998).

In *State Street Bank*, the Federal Circuit stated that "[u]npatentable mathematical algorithms are identifiable by showing they are merely abstract ideas constituting disembodied concepts or truths that are not "useful."" *State Street Bank*, 149 F.3d 1368, 47 U.S.P.Q.2d 1596 (Fed. Cir. 1998). "From a practical standpoint, this means that to be patentable an algorithm must be applied in a "useful" way." *Id.* Subsequent to *Diehr*, the Federal Circuit in *State Street Bank* stated that *Alappat* "held that data, transformed by a machine through a series of mathematical calculations to produce a smooth waveform display on a rasterizer monitor, constituted a practical application of an abstract idea (a mathematical algorithm, formula, or calculation), because it produced "a useful, concrete and tangible result"—the smooth waveform." (emphasis added).

Applicants respectfully submit that as in *In re Alappat*, claim 9 processes data to "provid[e] data to allow a display medium to display the focus node and the one or more nodes of the child sub-tree of the hierarchy of nodes determined to be associated with the context of the focus node without displaying the child sub-tree of the hierarchy of nodes that are not determined to be associated with the context of the focus node." Thus, claim 9 and dependent claims 10-14 produce a "useful, concrete and tangible result" and meet the requirements of 35 U.S.C. § 101.

Similarly, Applicants respect fully submit that as in *In re Alappat*, claim 21 processes data to "display[], on a display medium, the focus node and the one or more nodes of the child sub-tree of the hierarchy of nodes determined to be associated with the context of the focus node without displaying the child sub-tree of the hierarchy of nodes that are not determined to be associated with the context of the focus node." Thus, claim 21 and dependent claims 22-26 produce a "useful, concrete and tangible result" and meet the requirements of 35 U.S.C. § 101.

Likewise, Applicants respect fully submit that as in *In re Alappat*, claim 33 recites means process data and include a "means for providing data to allow a display medium to display the focus node and the one or more nodes of the child sub-tree of the hierarchy of nodes determined to be associated with the context of the focus node without displaying the child sub-tree of the

hierarchy of nodes that are not determined to be associated with the context of the focus node." Thus, claim 33 produces a "useful, concrete and tangible result" and meets the requirements of 35 U.S.C. § 101.

Applicants respectfully request withdrawal of the rejection.

Claim Rejections - 35 U.S.C. § 103

Claims 1-33 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,496,842 issued to Lyness (referred to herein as "*Lyness*"), in view of U.S. Patent No. 6,166,739 issued to Hugh (referred to herein as "*Hugh*"), and in view of "Multitrees: Enriching and Reusing Hierarchical Structure" ACM 4/1994 by Furnas et al. (referred to herein as "*Furnas*"). Applicants respectfully traverse the rejection.

Applicants respectfully submit that even assuming that the Examiner's cited teachings of *Lyness* and *Hugh* are properly combinable, *Lyness* in combination with *Hugh* and *Furnas* fails to teach or suggest the present invention of Claims 1-33.

Applicants have included below representative figures from *Lyness*, *Hugh*, and *Furnas*.

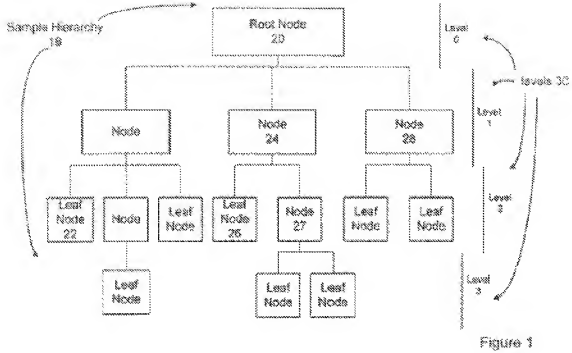
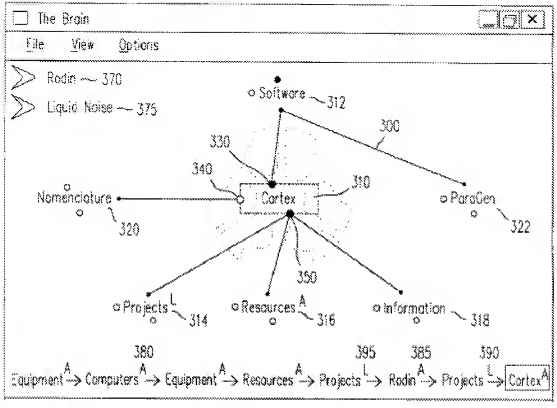
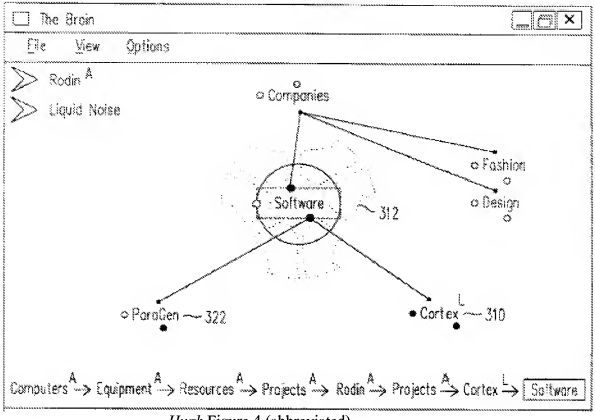


Figure 1

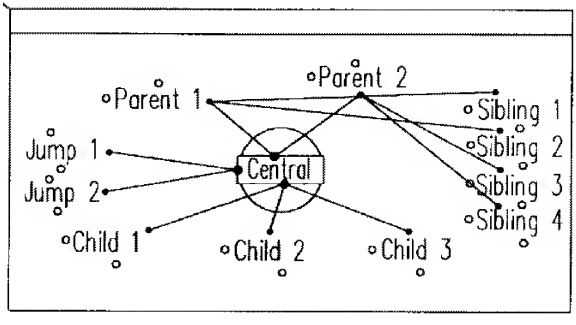
Lyness, Figure 1



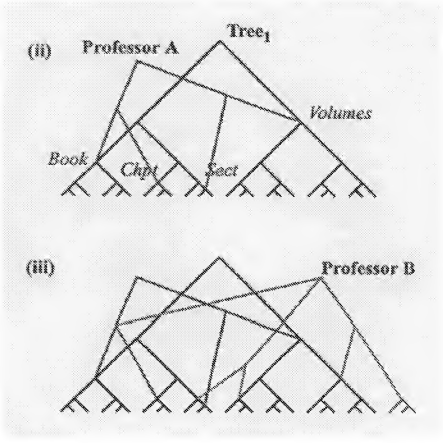
Hugh Figure 3 (abbreviated)



Hugh Figure 4 (abbreviated)



Hugh Figure 18 (abbreviated)



Furnas Figure 1 (abbreviated)

Referring to Figure 1 of *Lyness*, the entire sample hierarchy is displayed and, thus, includes each child node and each parent node.

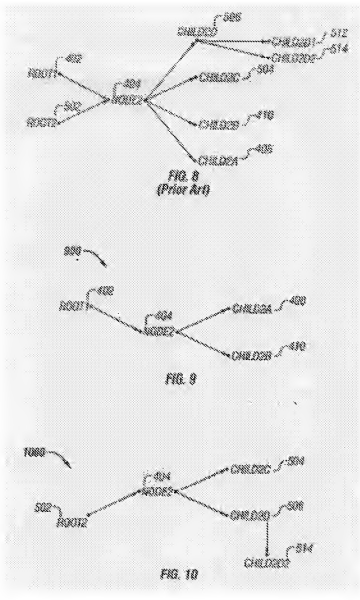
Referring to Figure 3 of *Hugh*, Cortex node has one parent node, Software, and three child nodes, Projects, Resources, and Information (Nomenclature is a "jump" node and ParaGen is a sibling node). Thus, all child nodes are children of Cortex and grandchildren of Software. Referring to Figure 4, Software node has two child nodes, ParaGen and Cortex, and one parent node, Companies, and two sibling nodes, Fashion and Design. Referring to Figure 18, Central node has two parent nodes, Parent 1 and Parent 2. All of the child nodes of Central, namely Child 1, Child 2, and Child 3, are displayed along with both parent nodes. Thus, each time a focus node is displayed, all of the parent and child nodes are displayed.

Referring to Figure 1 of *Furnas*, three parent/root nodes, namely Professor A, Tree 1, and Professor B, are shown with the child nodes of each of the parent/root nodes.

Although *Lyness* teaches a nodal hierarchy, *Hugh* teaches a focus node, and *Furnas* and *Hugh* teach multiple parent nodes, Applicants respectfully submit that *Lyness*, *Hugh*, and *Furnas*, neither alone nor in combination teach or suggest the present invention.

Present Application

Applicants respectfully submit that the present invention is neither taught nor suggested by *Lyness* in view of *Hugh* and *Furnas*. As background, Applicants refer the Examiner to the following figures from the Present Application:



Present Application Figures 8, 9, and 10.

Figure 8 (labeled prior art) represents a tree with a common node NODE2, two parent/root nodes ROOT1 and ROOT2, and multiple child nodes of the common node NODE2. When NODE2 is displayed, both parents, namely ROOT1 and ROOT2, and all children of NODE2 are also displayed.

Figures 9 and 10 represent two distinct hierarchies taken from the hierarchy of Figure 8 with focus node NODE2 being a common node to both hierarchies. The first hierarchy is

represented in Figure 9. Only the first parent ROOT1 of the focus node NODE2, the focus node NODE2, and the children CHILD2A and CHILD2B of the focus node NODE2 of the first hierarchy are displayed. Thus, the data and display can be represented compactly. Likewise, in Figure 10, the second hierarchy is represented. Only the second parent ROOT2 of the focus node NODE2, the focus node NODE2, the children CHILD2C and CHILD2D of the focus node NODE2, and the grandchild CHILDD2 of the second hierarchy are displayed.

From the Present Application Figures 9 and 10, several distinctions from the teachings of *Lyness* in view of *Hugh* and *Furnas* can be seen, such as the two hierarchies are displayed separately, each has a common focus node displayed; however, a parent node and child nodes of the one hierarchy is not displayed with the other hierarchy.

(Note, the invention is defined by the claims and not by specific embodiments described in the Present Application).

Applicants respectfully submit that that the claims also distinguish over the teachings and suggestions of *Lyness* in view of *Hugh* and *Furnas*.

Claim 1.

Applicants respectfully submit that *Lyness* in view of *Hugh* and *Furnas* neither teaches nor suggests:

1. "a focus node" having "a first parent node in [a] first hierarchy and a second parent node in [a] second hierarchy",

2. the "focus node **is a parent node for a first child sub-tree** of one or more nodes in the first hierarchy,

3. the focus node is also "**a parent node for a second child sub-tree** of one or more nodes in the second hierarchy",

4. "the first hierarchy does **not** include the second child sub-tree of one or more nodes",

5. "the second hierarchy does not include the first child sub-tree of one or more nodes",

6. "determining a context for the focus node, wherein the context identifies one of the first and second hierarchies", and

7. "displaying the parent node and at least one child sub-tree from the hierarchy identified by the determined context without displaying the parent node and child sub-tree in the hierarchy not identified by the determined context."

(Claim 1) (emphasis added).

Applicants respectfully submit that *Lyness* in view of *Hugh* and *Furnas* does not teach a focus node common to two distinct hierarchies and "displaying the parent node and at least one child sub-tree from the hierarchy identified by the determined context without displaying the parent node and child sub-tree in the hierarchy not identified by the determined context." Claim 1.

This distinction between Claim 1 and the teachings and suggestions of *Lyness* in view of *Hugh* and *Furnas* are non-trivial. The Present Application states that "the inventors have determined that it is beneficial to utilize an interface that presents information to a user from a graph that includes at least one shared common node but does not re-use the full child sub-tree for the common node among the hierarchies." Present Application, p. 11, lines 7-9. Applicants respectfully submit that this is not possible to achieve from the teachings of *Lyness* in view of *Hugh* and *Furnas*. Although the claims are not limited to specific embodiments in the Present Application, the benefit expressed in the Present Application, p. 11, lines 7-9 can generally apply to the invention of Claim 1.

Claims 9, 15, 21, 27, and 33.

Applicants respectfully submit that independent Claims 9, 15, 21, 27, and 33 are also allowable over the *Lyness* in view of *Hugh* and *Furnas*.

For conciseness, Applicants refer the Examiner to the above discussed teachings of *Lyness* in view of *Hugh* and *Furnas*. Accordingly, Applicants respectfully submit that *Lyness* in view of *Hugh* and *Furnas* neither teaches nor suggests:

> the **focus node** is one of the plurality of nodes and **is a common node of a first hierarchy of nodes and a second hierarchy of nodes**;
>
> the plurality of nodes are included in a node link structure;
>
> the plurality of nodes include the first hierarchy of nodes and the second hierarchy of nodes;
>
> **the focus node has a first parent node in the first hierarchy** of nodes and **has a second parent node in the second hierarchy** of nodes;
>
> the **focus node is a parent node for a first child sub-tree** of one or more nodes in the first hierarchy **and is a parent node for a second child sub-tree** of one or more nodes in the second hierarchy; and
>
> **the first hierarchy does not include the second child sub-tree** of one or more nodes;
>
> **the second hierarchy does not include the first child sub-tree** of one or more nodes;
>
> **identifying** [identifies -Claim 15] **a context of the focus node**, wherein the context is associated with one of the first hierarchy of nodes and the second hierarchy of nodes; and
>
> providing data to allow a display medium to display [displaying, on a display medium – Claim 15] the focus node and the one or more nodes of the child sub-tree of the hierarchy of nodes determined to be associated with the context of the focus node without displaying the child sub-tree of the hierarchy of nodes that are not determined to be associated with the context of the focus node.

In light of the above remarks, Applicants respectfully request withdrawal of the rejection of independent Claims 1, 9, 15, 21, 27, and 33.

Dependent Claims.

Applicants respectfully request withdrawal of the rejection of the dependent claims for at the same reasons as the independent claims upon which dependent claim depends.

CONCLUSION

In view of the amendments and remarks set forth herein, Applicant respectfully submits that all pending claims are in condition for allowance. Accordingly, Applicant requests that a Notice of Allowance be issued. Nonetheless, should any issues remain that might be subject to resolution through a telephone interview, the Examiner is requested to telephone the undersigned at 512-338-9100.

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Respectfully submitted,

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